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ABSTRACT

Acquiescence, the tendency to respond affirmatively regardless of the content of a question, was examined in 57 mentally retarded children (11 to 17 years old) and 91 nonretarded children (3 to 8 years old). Embedded within the standard interview schedule for both samples were two pairs of oppositely worded questions on the same topic. Acquiescence was defined as answering yes to both questions in a pair, thus contradicting oneself. In direct comparisons of retarded and normal children at three average mental age levels (4.9, 7.0, and 9.4), acquiescence was found to decline markedly and steadily among normal children with increasing mental age, but the trend in the mentally retarded sample was considerably weaker. As a result, while normal and retarded children displayed similarly high rates of acquiescence at the lowest mental age level, acquiescence was more common among retarded than among normal children at the higher mental age levels. Additional data on acquiescence among normal children further confirmed the negative relationship between acquiescence and age. Speculations about the origins of acquiescence and its persistence among mentally retarded children at higher mental ages center on cognitive and linguistic immaturity, and reinforcement contingencies that selectively strengthen "yes" answers over "no" answers. Finally, since acquiescence invalidates answers given by both young normal children and mentally retarded persons, it is recommended that yes-no questions be avoided with these groups in research and clinical practice and that attention be given to developing alternative questioning strategies which minimize systematic response biases. (Author)

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RESPONSE BIAS IN ANSWERS GIVEN BY NORMAL AND RETARDED CHILDREN

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INTRODUCTION

Developmental researchers, diagnosticians, and practitioners have long recognized it can to difficult to elicit answers to verbal questions from young children and others with limited verbal competence. Far less is known about the validity of the answers such individuals do give. The present study focuses on acquiescence as a source of invalidity in answers given by normal and mentally retarded children. Acquiescence is the tendency to agree or answer "yes" to a question regardless of its content. Limited previous research suggests that both young normal children (Rothenberg, 1969) and mentally retarded children and adults (Gerjuoy & Winters, 1966; Rosen, Clark, & Kivitz, 1977) are highly susceptible to acquiescence. Since young normal children and mentally retarded persons share cognitive immaturity, it can be hypothesized that acquiescence is a function of low mental age and will decrease as mental age increases. Thus the present study compares rates of acquiescence in these two populations to clarify the role of mental age in acquiescence.

METHOD

Participants

Acquiescence data for retarded children and adults were collected through 15- to 30-minute interviews with three samples: children living at home in an urban community, institutionalized children, and institutionalized adults. These data, already reported elsewhere (Sigelman et al., 1980; Sigelman, et al., in press), revealed alarmingly high acquiescence rates in the three samples and a modest negative relationship between acquiescence and IQ.

In the present paper, the previously analyzed sample of retarded children living at home is compared to a new sample of non-retarded children. Retarded participants were drawn from a school for the trainable mentally retarded and from special education classes in an urban community. They were selected from the 11 to 17 age range to represent equally the severe, moderate, and mild levels of retardation based on most recent full - scale IQ on file. The mean age of the sample of 57 was 14.03 (SD = 1.92); the mean IQ 47.53 (SD = 12.12); and the mean mental age 6.65 (SD = 1.88).

The normal comparison sample was drawn from preschool and school facilities on a university campus. The 91 interviewees ranged in age from almost 3 to slightly over 8 (M age = 6.27, SD = 1.74). IQ scores available for the older half of the sample suggested above-average intelligence (M IQ = 115.96).

Interview Procedures

Embedded within the interview schedules administered to participants in both samples were two oppositely-worded question pairs used to measure acquiescence: "Are you usually happy?" vs. "Are you usually sad?", and "Are you usually with other people?" vs. "Are you usually by yourself?" Answering affirmatively to both questions in a pair was defined as acquiescent responding. While these same alternative questions, separated by several unrelated questions, were used in both samples, the contents of the two interview schedules were otherwise quite different. Retarded children were asked primarily about their activity patterns and home and school environments. Normal children were asked several other questions to further explore acquiescence and other response biases, including four questions that should properly be answered "no" (e.g., "Are you a school

bus driver?"), questions involving Piagetian conservation of number tasks, and items measuring socially desirable responding (e.g., "Do you always listen to your parents?")

RESULTS

Among mentally retarded children, overall rates of acquiescence were 50.9% for the happy-sad question pair and 50.0% for the alone-with others question pair. Acquiescence was unrelated to age, but tended to decrease as IQ increased (r = -.30 and -.24, respectively, for the two question pairs, $p < .05$) and as mental age increased (-.22 and -.23, respectively, n.s.).

By comparison, the overall rates of acquiescence among normal children were 28.57% for the happy-sad question pair and 21.18% for the alone-with others pair. With increasing age (and by inference mental age), acquiescence declined markedly (r = -.54 for the happy-sad pair and -.51 for the alone-with others pair, $p < .0001$). The opposite type of response bias, answering "no" to both questions, was negligible in both samples.

To permit a more direct comparison of the two samples, normal children were grouped into three age ranges: 3 to 4, 5 to 6, and 7 to 8. Based on the mean IQ for those who had IQ scores on file, estimated mean mental ages for the three age groups were calculated (4.9, 7.0, and 9.4, respectively). Finally, mentally retarded children were grouped, starting with the lowest mental ages, into three subgroups with average mental ages equivalent to those of the three groups of normal children.

Figures 1 and 2 display acquiescence rates for the two oppositely-worded question pairs in the two samples at each mental age level. As Figure 1 shows, acquiescence declines markedly

with increasing mental age among normal children ($\underline{X}^2$ = 23.72, $\underline{p}$ < .0001), but this is not the case among retarded children ($\underline{X}^2$ = 5.47, n.s.). Whether they are retarded or non-retarded, the majority of children in the lowest mental age range contradict themselves by saying "yes" to both questions in this pair. Differences between samples in acquiescence rates are nonsignificant at both the 4.9 and 7.0 mental age levels, but retarded children are more acquiescent than normal children at the highest mental age level ($\underline{X}^2$ = 11 08, $\underline{p}$ < .001).

The findings for the alone-with others question pair (Figure 2) are similar. Again, acquiescence diclines steeply with mental age among normal children ($\underline{X}^2$ = 18.33, $\underline{p}$ <.0001), but not among retarded children ($\underline{X}^2$ = 2.13, n.s.). Again too, acquiescence rates are similarly high at the lowest mental age level, but in this case acquiescence is significantly higher among retarded than among normal children at both of the higher mental age levels ($\underline{X}^2$ = 5.32, $\underline{p}$ <.05; and $\underline{X}^2$= 11.66, $\underline{p}$ < .001).

Additional acquiescence data collected from the normal children substantiate a decline in acquiescence with increasing mental age. Table 1 shows the percentages at each age group who acquiesced by answering "yes" to four questions that call for "no" answers. Although rates of acquiescence were generally lower for these questions than for the oppositely-worded items, age-group differences in acquiescence were significant ($\underline{p}$ <.05) on all four questions. Taking all four questions into account, 50% of the youngest children acquiesced on at least one question, while only 20% of the 5- and 6-year-olds and 9% of the 7- and 8-year-olds did so. Similar declines in acquiescence with age were evident on three pairs of alternate questions based on conservation of number tasks (e.g., "Do the rows have the same number of chips in them?" vs. "Does one row have more chips in

it?"). Average acquiescence rates on these pairs were 39% for the youngest group, 15% for the middle group, and 5% for the oldest group. Only on questions relevant to social desirability (e.g., Do you always listen to your parents? vs. Do you sometimes not listen to your parents?) was there any deviation from the predictable pattern. The youngest children had difficulty with the questions with the "sometimes not" wording and did not consistently acquiesce more than the 5- to 6-year-olds. Finally, across these items, acquiescence on one question pair was not highly related to acquiescence on other question pairs (range of correlations .02 to .47).

DISCUSSION

Summary of Findings

Acquiescence, as measured primarily by answering "yes" to two oppositely-worded questions on the same topic, declines steadily with increasing mental age among normal children. It is a substantial threat to response validity among preschool children, declines but continues to pose some problems through ages 5 and 6, and finally disappears almost entirely by age 7 to 8. However, among mentally retarded children, acquiescence continues to be a substantial problem even among those with relatively high mental ages. Put another way, mentally retarded children with low mental ages (in a range from approximately 3 to 6) behave just like normal children in the same mental age range: They acquiesce frequently. However, at higher mental age ranges, mentally retarded children distinguish themselves from normal children by their continuing tendency to say "yes" when they should not. Specific question content affects rates of acquiescence among both normal and retarded children, but

does not greatly alter the relationship between acquiescence and mental age.

Why Do Young Children Acquiesce?

Clearly acquiescence is a common phenomenon among young and/or cognitively immature children. It might be speculated that acquiescence is partly an outgrowth of limited cognitive and linguistic competence and partly a function of reinforcement contingencies. Studies of one- and two-year-old children suggest that yes-no questions are frequently asked by parents and that language learners recognize how to match the form of the question with an answer form before they learn to make truthful or accurate responses. Steffensen (1977), for example, studied a boy who shifted over time from one answering strategy to another (e.g., at first an affirmative "un-huh," then "no", and finally "yes"). Because the child adopted one favorite question-answering strategy at any given age, many verbal answers were contradicted by other behavioral data (e.g., his mother asked, "May I have the Baby?" and he said "No," but gave it to her). These findings suggest that only later in the developmental process does the child fully grasp the fact that answers should confirm or deny the semantic content of the question. Some of this linguistic immaturity may carry over into the low age range studied here. Young children, especially when they do not fully understand a question, may fall back on a reliable answer form simply to meet the demand for an answer of some kind.

Drawing on reinforcement theory, we may further account for why "yes" rather than "no" may be the preferred question-answering strategy. While Steffensen (1977) suggests that

negative responses may be common early in development because the word "no" is often used by parents in commands and is therefore highly salient, she also points out that the overwhelming majority of questions asked by parents call for affirmative responses. As a result, "yes" answers and other forms of agreement are probably positively reinforced more often than negative replies, which in some circumstances can even lead to punishing consequences. In this way, children may be shaped to say "yes" in order to please adults. Only later in development, as the types of questions parents ask change, might the truth value of the answer begin to take precedence over its form (yes or no) in determining reinforcement contingencies.

Why Does Acquiescence Persist among Retarded Children?

We can speculate that the persistence of acquiescence among mentally retarded children, even when their non-retarded mental age peers have abandoned it, is, like the origin of acquiescence, partly a matter of inability and partly a matter of reinforcement contingencies. Studies of language development among the retarded provide some evidence that retarded children may fall increasingly behind their mental age peers with increasing mental age. In addition, being stigmatized, mentally retarded children may have additional motivation to be as agreeable as possible to avoid unfavorable evaluative reactions from other people. It may take a combination of linquistic immaturity and selective reinforcement of "yes" responses to maintain an acquiescent response style.

What Are the Implications of Acquiescence?

The present findings have clear implications for anyone

who uses verbal questioning techniques to interview or assess young children or mentally retarded children and adults. While children learn early in life to give yes or no answers to yes-no questions, young children cannot be trusted to give valid yes or no answers. The substantive information gained through the yes-no questions used here, including assessments of the extent to which children had mastered conservation of number, varied considerably depending on how the question was phrased. This suggests that, wherever possible, yes - no questions should be avoided and other question formats used. However, any alternative question formats should be tested to insure that they do not engender strong response biases of their own (for example, a tendency to select the last of two options when asked an either-or question). Even in the early elementary grades, where yes - no questions might more appropriate, checks for acquiescence would be advisable.

These recommendations carry the greatest weight in clinical situations in which children's answers to questions can affect diagnoses or educational and therapeutic interventions. At best, it is pointless to ask questions that yield invalid answers, and at worst treating such answers as though they were valid can be very hazardous. Much more needs to be learned about the various functions that acquiescence serves for cognitively immature persons, about its developmental course and correlates, and about how it and other systematic response biases can be minimized.

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FIGURE 1

SAYING YES TO BOTH "ARE YOU USUALLY HAPPY?" AND ARE YOU USUALLY SAD?"

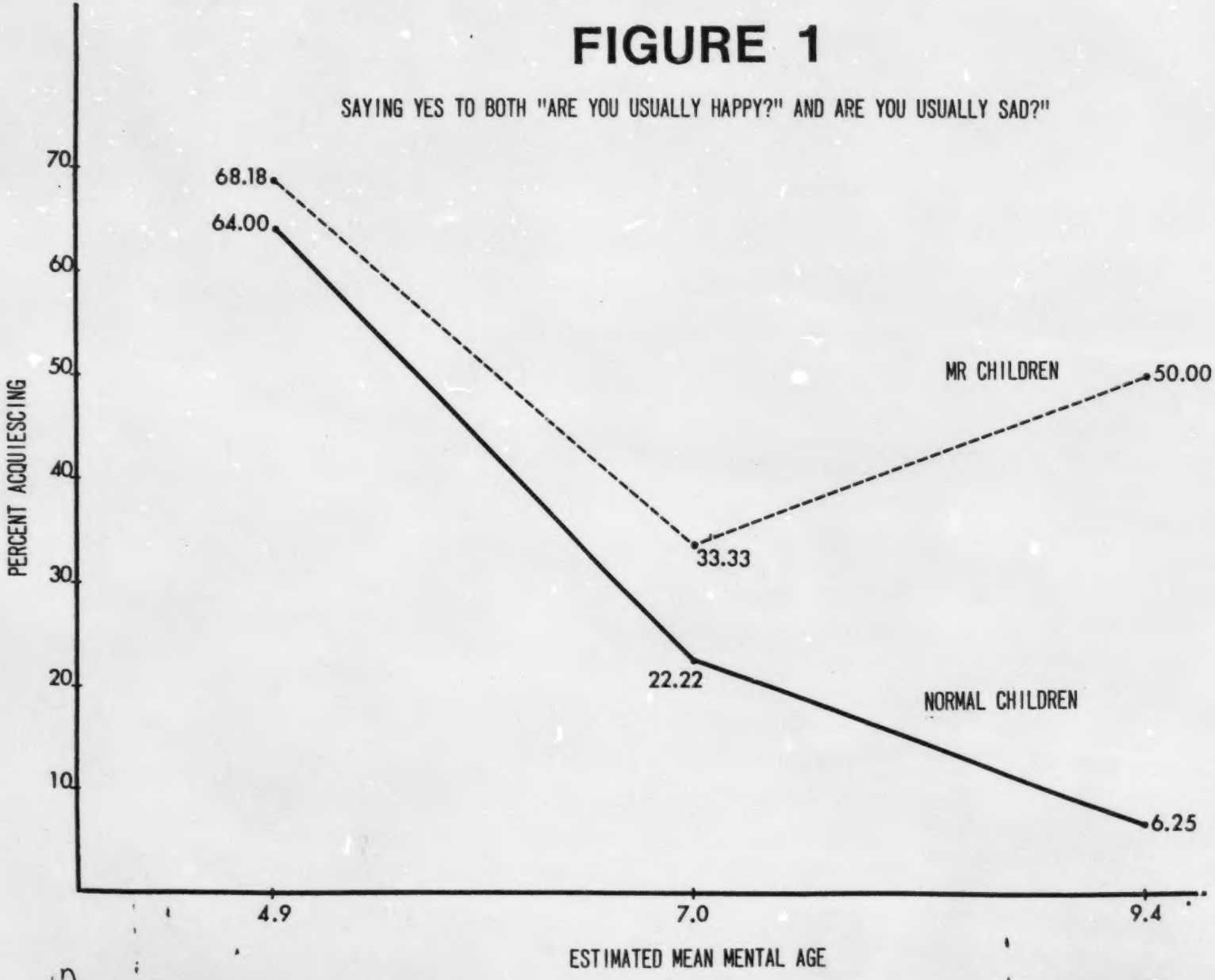

FIGURE 2

SAYING YES TO BOTH "ARE YOU USUALLY WITH OTHER PEOPLE?" AND "ARE YOU USUALLY BY YOURSELF?"

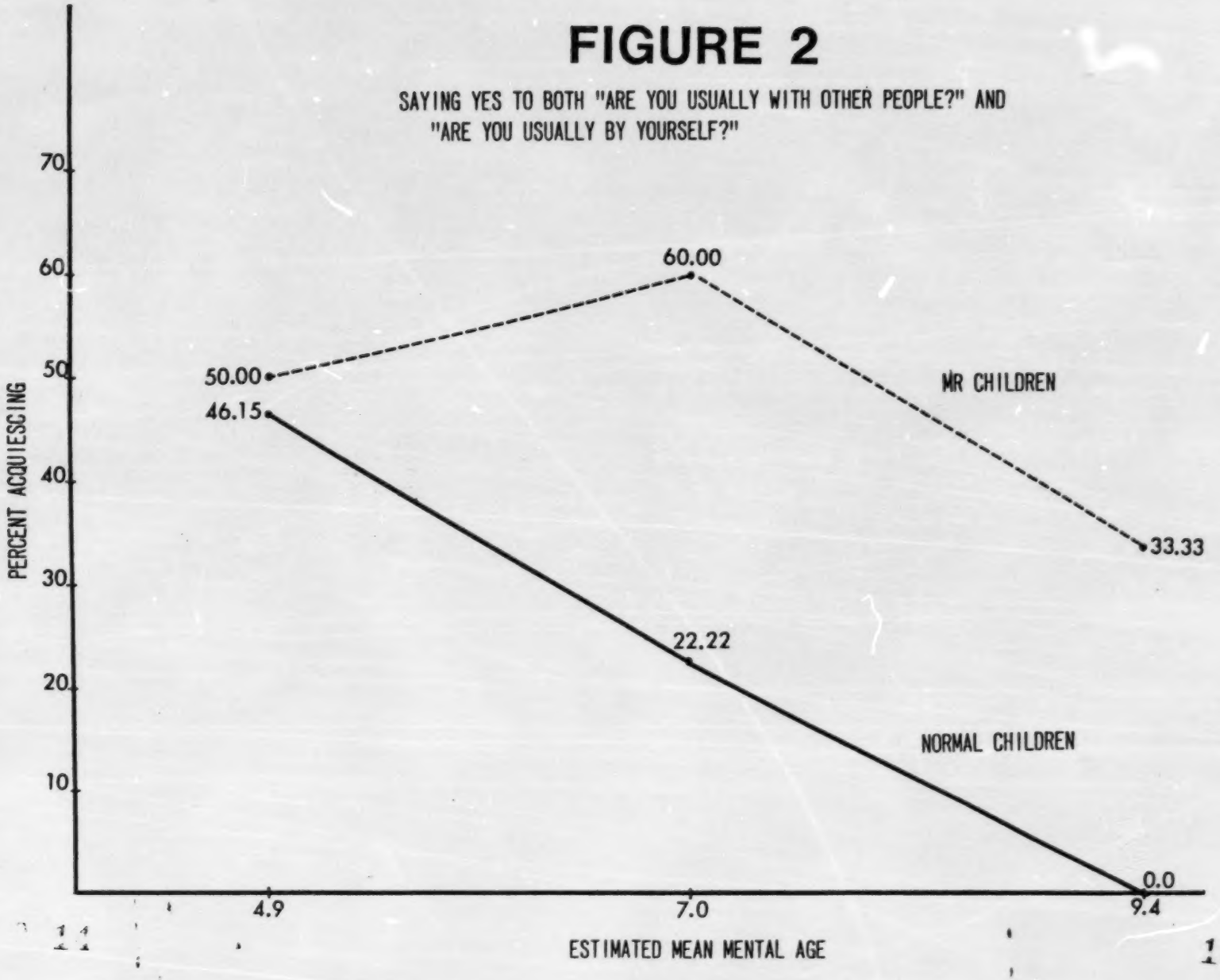

Table 1.

PERCENTAGES OF NORMAL CHILDREN ANSWERING "YES"

TO QUESTIONS CALLING FOR A "NO" ANSWER.

	AGE GROUP		
	3-4 (est.MA 4.9)	5-6 (est.MA 7.0)	7-8 (est.MA 9.4)
Do you know how to fly an airplane?	28.6	10.3	6.2
Does it ever snow here in the summer?	35.7	6.7	3.0
Are you Chinese?	21.4	3.3	0.0
Are you a school bus driver?	14.3	0.0	0.0